Exhibit 28

Kosuke Imai, PhD The South Carolina State Confvs.McMaster/Alexander

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1	IN THE UNITED STATES DISTRICT COURT
	FOR THE DISTRICT OF SOUTH CAROLINA
2	COLUMBIA DIVISION
3	THE SOUTH CAROLINA STATE
	CONFERENCE OF THE NAACP,
4	et al.,
5	Plaintiffs,
6	vs. CASE NO. 3:21-cv-03302-MGL-TJH-RMG
7	THOMAS C. ALEXANDER,
	et al.,
8	
9	Defendants.
10	
11	DEPOSITION OF: KOSUKE IMAI, PhD (Via VTC)
12	DATE: August 8, 2022
13	TIME: 11:04 a.m.
14	LOCATION: Cambridge, MA
15	TAKEN BY: Counsel for the Senate Defendants
16	REPORTED BY: SOLANGE RUIZ-URIBE, Court Reporter
	Via Videoteleconference
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1	plan and then generating different start
2	generating different plans by modifying it.
3	Whereas the SMC is really about
4	starting from a blank slate and start building one
5	district at a time.
6	Q. Thank you. So I want to start with the
7	third sentence in the abstract of this paper.
8	A. Okay.
9	Q. And I'm just going to read that out loud.
10	It says: For successful application sampling
11	methods must scale to large maps with many
12	districts, incorporate realistic legal constraints
13	and accurately and efficiently sample from a
14	selected target distribution. Unfortunately, most
15	existing methods struggle in at least one of these
16	areas.
17	So my first question, Dr. Imai, did I
18	read that correctly?
19	A. That's correct.
20	Q. Do you agree that simulation analysis must
21	incorporate realistic legal constraints?
22	A. I agree.
23	Q. And the next sentence says that: Most
24	existing methods struggle in at least one of these
25	areas.

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- Q. Do you agree that for simulation plans to be instructive they have to comply with legal requirements for redistricting plans generally?
 - A. I disagree.

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- Q. Explain that, please.
- A. Simulations can be used in many different purposes. So for example, you could see the impact of, you know, what would happen if you take out one particular requirement. And so depending on the goal of the analysis, a different set of constraints can be imposed.

And also, I'm not a lawyer so I don't really make judgment about whether those constraints, how they correspond to the legal requirements. They are informed by legal requirements but I don't make any judgment about the viability in the legal sense. The constraints are mathematical constraints and they are what they are. Nothing more, nothing less.

- Q. So is it fair to say, Dr. Imai, that you did not analyze whether any of your simulation plans are legal?
- A. I'm not a lawyer so my analysis does not draw any legal conclusions.
 - Q. Okay. And I just understand the scope of

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1	your analysis.
2	A. Right.
3	Q. You didn't do anything to try to determine
4	whether your plans were legal, correct?
5	A. Yeah. No, I didn't do that.
6	Q. Now, Dr. Imai, I believe your report
7	mentions the South Carolina House and Senate
8	redistricting criteria; is that right?
9	A. That's correct.
10	Q. So let's go to tab five of your binder.
11	A. Okay.
12	Q. Which is the House Redistricting Criteria.
13	A. All right. Tab five. Okay. House, yes.
14	Okay.
15	Q. And I'm going to mark this as Exhibit Six.
16	(Defendant's Exhibit No. 6, SOUTH CAROLINA
17	HOUSE OF REPRESENTATIVES JUDICIARY COMMITTEE
18	REDISTRICTING AD HOC COMMITTEE 2021 GUIDELINES AND
19	CRITERIA FOR CONGRESSIONAL AND LEGISLATIVE
20	REDISTRICTING, was marked for identification.)
21	BY MR. GORE:
22	Q. And I hope I can figure out how to
23	introduce it. Okay. Dr. Imai, do you recognize
24	this document?
25	A. Yes.

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Page 103 additional considerations on the Senate guidelines, 1 2 letter B is constituent consistency and it lists: Preserving the cores of existing districts. 3 Did the algorithm consider preserving 4 5 the cores of existing districts in generating plans? 6 So to the extent that, you know, I 7 instructed the algorithm to avoid incumbents pairing and to the extent that my race plan simulations, for 8 9 example, freezes, you know, all the districts other 10 than Districts 1 and 6 and in the case of second 11 race-blind simulation it freezes everything other 12 than Charleston County. 13 So in that sense, you know, there are constraints that have implications of cores of 14 15 existing districts, preservation. 16 Ο. Did you --17 Α. But the analysis I presented in my final report did not directly use, you know, previous --18 19 the benchmark plan. And so your analysis did not include a 2.0 21 constraint for preserving the cores of districts, 2.2. correct? 2.3 Α. Not directly. 24 And likewise, it did not include a 25 constraint for keeping incumbents' residences in

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districts with their core constituents, correct?

- Yeah, incumbents weren't paired but there was no constraint that directly, you know, that needs a definition of what the core constituency of incumbents are. And that information was not available so I did not include that either.
- And as we discussed before, the districts Ο. in your simulation plans had the same numbers as districts in the enacted plan but may cover different geography; is that right?
- That's correct, depending on, you know, this will change across analysis and, you know, I have three analyses. So first two analyses are probably much bigger overlap than statewide analysis, for example, but yeah.
- So for example, wouldn't that also mean that because the districts encompass different geography they encompass different populations and voters, correct?
- That's correct, different people in Α. different areas.
- And speaking with this page, communities of interest --
 - Uh-huh. Α.
 - Q. Did you include any constraint for

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Page 105 communities of interest? 1 2 So again, only to the extent that, you know, things like administrative boundaries, like 3 counties and municipalities overlap with these 4 5 interest and to the extent that, you know, incumbent residence wasn't paired, but there is no definition 6 7 of communities of interest available so I didn't use that. 8 9 Ο. So there was no direct constraint on 10 communities of interest, correct? 11 Α. That's correct to the extent that --12 Ο. Okay. 13 Α. Yeah, I don't have, you know, definitions of what these communities are. 14 15 And so you didn't assign a strength to 16 communities of interest, correct? 17 Α. Right, because there is no mathematical, you know, geographical definition of communities of 18 19 interest so I didn't assign that constraint directly to this. 2.0 21 And so you also didn't assign a strength 2.2. to preserving the course of existing districts, correct? 2.3 24 Α. That's correct. For the reason that I explained that in order to isolate the role that 25

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1	race played in determining the districts of enacted
2	plan that I didn't want to include any plan
3	including the benchmark plan.
4	Q. And similarly, you didn't assign a
5	strength to keeping incumbents residences in
6	districts with their core constituents, correct?
7	A. Right. So the weights are for just the
8	avoidance of incumbent pairing and not with respect
9	to their core constituents because they are not
10	that definition was not available to me.
11	Q. Okay. Let's look down at letter E,
12	minimizing divisions of voting precinct boundaries?
13	A. Uh-huh.
14	Q. Did you program a constraint in the
15	algorithm for VTD splits or precinct splits?
16	A. Let's me double check. Yeah, I don't
17	think so. It's no a listed in paragraph 57, which
18	is not yeah.
19	Q. And I don't believe it's listed in
20	paragraphs 20 or 22 either.
21	A. Yeah, I wanted to double check, yeah. I
22	don't think I imposed that constraint.
23	Q. So let's go to can we go to figure 14

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on page 27 of your report?

Yes.

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Page 155 And again, you didn't review any public 1 2 testimony, comment or legislative testimony about splitting or repairing the split in Charleston 3 County, correct? 4 5 Α. No. 6 Ο. And did you analyze the political effect 7 of placing all of Charleston County in District 1 with Nancy Mace? 8 9 I did not use any partisan data in my 10 analysis. 11 And did you analyze what changes to the 12 map would have been required in other parts of the 13 state if all the Charleston was placed in District 1? 14 15 Α. Can you repeat the question again? 16 Ο. Sure. So if you -- Charleston County, if 17 you place Charleston County in District 1? 18 Α. Uh-huh. 19 In the enacted plan, you would have to make changes to other districts in order to equalize 20 21 population, correct? 2.2. Α. That's correct. 2.3 Ο. All right. And did you do any analysis of 24 that other than to recognize if that's true? 25 Α. Yeah, that's true but I didn't do any

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- No, I look at the enacted plan. Α.
- Q. Thank you. You answered my next question.
- So Dr. Imai, you base your simulation constraints on the published South Carolina quidelines for the House and Senate, right?
 - Yeah, I don't know whether they are published but those two guidelines that were given to me.
 - And in those two quidelines was there any indication, for example, that core preservation should be prioritized over other criteria?
 - Α. I believe that it was listed as No. additional constraint in Senate quideline I think and may not be even directly mentioned in the House guideline or at least it was not priority, listed as a priority.
 - Ο. Thank you. And you testified -- well, why did you choose not to incorporate core preservation, if you can explain again?
 - Α. Right. So the goal of my analysis, the entire report, the goal of the entire report was to examine whether race played a significant role in drawing district boundaries of the enacted plan and, if so, how that happened. And to do that I need to isolate the impact of race, like the role that race

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played from other traditional redistricting criteria and some of the rules in the -- mentioned in the quideline.

If I incorporate any product does not have to be benchmark plan, but if I incorporate any plan in my simulation analysis, it will basically carry all the factors that went into that particular plan. So in order to isolate the race as a factor I did not use this through my analysis that I did not use any plan including the previous plan.

- Q. Thank you. Now, you recall Mr. Gore asked you some questions about the use of partisanship data in your simulation, right?
 - A. Yes.

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- Q. And you explained that you didn't do any -- you didn't use partisanship information; is that right?
 - A. Right.
- Q. And we just covered this, but you read the guidelines, right?
 - A. Uh-huh, yes, I did.
- Q. Did anything in the guidelines suggest to you that your simulation should have accounted for Nancy Mace's election chances, for example?
 - A. I didn't see any mention of that. Yeah, I

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1	did not see any specific instruction about use of
2	election outcomes.
3	Q. Did anything suggest to you that it was
4	important for the map makers to enact a map that
5	favored Republicans?
6	A. I don't analyze intent of map drawer so I
7	can't, you know, say what they have thought about
8	but the guideline didn't specify, you know, specific
9	use of electoral outcome or electoral chance of
10	politicians and that wasn't, you know, even a
11	political consideration wasn't an additional
12	consideration and so I took other more traditional
13	redistricting criteria as priority.
14	MR. CEPEDA: Thank you, Dr. Imai. I have
15	no more questions.
16	EXAMINATION
17	BY MR. GORE:
18	Q. I have just a couple of questions of
19	redirect, Dr. Imai.
20	A. Okay.
21	Q. Now, you said you haven't attempted to
22	analyze the intent or motives of the map drawer or
23	legislators, correct?
24	A. That's correct.
25	Q. And so you don't have an opinion one way

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1	or the other as to whether the map drawer or the
2	legislators considered politics even if politics is
3	not in the guidelines, correct?
4	A. That's right. I don't have any opinion on
5	that.
6	Q. Do you have a view or opinion on whether
7	the map drawer or the legislators considered Nancy
8	Mace's reelection prospect whether or not that's
9	listed in the guidelines?
10	A. No, I don't have any opinion on that.
11	Q. And do you have any opinion or view on
12	whether the map drawer or legislators wanted a plan
13	that would elect six Republicans regardless of
14	whether that's in the guidelines?
15	A. I don't have any opinion on that.
16	Q. And Dr. Imai, is keeping Charleston in a
17	single district anywhere in the guidelines?
18	A. I don't think so, there is no specific
19	counties being mentioned.
20	Q. How about keeping Richland in a single
21	district?
22	A. I don't think so.
23	Q. And how about keeping District 6's BVAP

Those numbers are not specifically

calendar-carolinas@veritext.com

between 45 percent and 50 percent?

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